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ABSTRACT

The first part of this paper details a study that examined differences between students who received course-based and non-course-based writing remediation. A total of 260 students at Southwest Texas State University who had received one or more semesters of course-based writing remediation or one or more semesters of non-course-based writing remediation participated in the study. No significant differences were found between the two groups in their scores on development writing tests or their grades in required freshman English, history, and philosophy courses. However, significant differences were detected in the grade point averages (GPAs) of students who received course-based and non-course-based writing remediation, with the latter having significantly higher GPAs. The results suggest that comparing course-based and non-course-based remediation using the same tests and measurements may not be feasible. The second part of the paper outlines the data collection model for this study, and contains sample data collection forms. (MDM)

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ED 411 730

The Effectiveness of Course-Based and Non-Course-Based Writing Remediation

(Results of Study)

2nd National Conference on
Research in Developmental Education
(October 23 - 26, 1996)

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RESULTS OF STUDY

This study was conducted to determine whether significant differences could be detected between two groups of students at Southwest Texas State University (SWT) in San Marcos, TX: students who receive course-based writing remediation and those who receive non-course-based writing remediation. To examine differences, four dependent variables were identified:

1) The rate of students passing TASP writing after remediation;
2) Grades received in writing-intensive courses after remediation;
3) Number of credit hours earned at SWT as of May 1995 or the most recent semester the student was enrolled; and
4) Grade point average at SWT as of May 1995 or the most recent semester the student was enrolled.

Although research (Boylan, Saxon, Bonham, & Parks, 1993; Miles, 1984; and Kulik, Kulik, & Schwalb, 1983) indicates a need for analyses of differences between course-based and non-course-based instructional strategies, this study did not consider such aspects since its purpose was to evaluate simply whether differences exist between students who are remediated in course-based and in non-course-based programs at a four-year public university. In other words, this study was concerned with TASP passing rates, overall differences in writing-intensive grades, grade point averages for students who had been enrolled in remediation, and the number of credit hours received by remediated students. Nor does the study allow for differences among students who received varying hours of remediation, but only whether a student received remediation. While this method of selecting subjects limits the study, it did eliminate those students who did not attend remediation.

Initially, subjects were divided into the following five groups to attempt to determine whether the number of semesters in remediation affected any of the variables being measured:

1) Students receiving one semester of course-based writing remediation,
2) Students receiving two or more semesters of course-based remediation,
3) Students receiving one semester of non-course-based-remediation,
4) Students receiving two or more semesters of non-course-based remediation, and
5) Students receiving two or more semesters of course-based and non-course-based-remediation.

Of the 509 cases examined, 260 subjects remained who had been remediated and then retook the TASP writing portion. Due to the limited number of subjects remaining for each of the variables and the numbers required for the statistical tests of significance conducted, the data were combined into the following two groups:

1) Students receiving one or more semesters of course-based writing remediation, and
2) Students receiving one or more semesters of non-course-based writing remediation.

Only in the initial analysis are the differences noted between the five groups. Elimination occurred in many instances because students who failed TASP writing also had failed another TASP section, either mathematics or reading, and were remediated in one of those areas during the period covered by this study. During remediation in one of those subject areas, students often retook the TASP writing portion and passed it, thus not requiring them to be remediated in writing.

Other subjects were eliminated because they did not attend SWT but only had their scores sent to the University. Also, several students began remediation but failed to enroll in SWT the following semester or enrolled in another college or university and could not be counted in the follow-up. While more than 50% of the students enrolled in writing remediation and then retook the test, many of these same students were later eliminated from the cohort because they did not enroll in one of the writing-intensive courses after remediation, or had taken such a course before remediation.

Chi-square tests were conducted on the data, including grades and cumulative grade point averages, and the level of significance was .05. Borg and Gall (1989) state that these tests can be used on grades when the characteristics being considered are actually continuous variables that have been categorized. In this study, the grades and grade point averages were converted to meaningful categories. For example, writing-intensive course grades were divided into three groups: A and B (3.0); C (2.0); and D and F (1.0). Similar groupings were made as necessary in other categories, depending on the number of subjects.

Students Passing TASP Writing after Remediation

As shown in Tables 1 and 2, no significant difference was observed between students who were remediated in course-based and non-course-based writing programs at SWT. Table 1 shows the five groups, and Table 2 shows the groups combined into course-based and non-course-based.

Table 1
Percentage of Students Passing TASP Writing After Remediation (5 Groups)

	Pass TASP		Fail TASP	
Group	n	%	n	%
Population	202	77.4	58	22.6
Course-based 1 semester	57	67.1	28	32.9
Course-based 2+ semesters	18	54.5	15	45.5
Non-course-based 1 semester	91	91.9	8	8.1
Non-course-based 2+ semesters	8	88.9	1	11.1
Course-based and Non-course-based 2+ semesters	28	82.4	6	17.6

Table 2
Percentage of Students Passing TASP Writing After Remediation (2 Groups)

	Pass TASP		Fail TASP	
Group	n	%	n	%
Population	202	77.4	58	22.6
Course-based 1+ semester	75	63.6	43	36.4
Non-course-based 1+ semester	127	89.4	15	10.6

One of the major limitations of this study is the method of placing students into course-based and non-course-based remediation. Students needing less intensive instruction at SWT often are placed in non-course-based remediation. While any student may appeal placement to the SWT TASP Office, this placement policy limits the conclusions that can be drawn from the data.

Grades Received in Writing-Intensive Courses Taken after Remediation

A chi-square test was used to examine grades received in English 1310 and 1320 (the first two required English courses at SWT) after students had been remediated in course-based and non-course-based writing programs. As shown in Tables 3 and 4, no significant differences existed between each of the two groups.

Table 3
Chi-Square Test for English 1310 Grades

Grade	CB	NCB	Total	Percent
1.0 (D, F)	14	5	19	26
2.0 (C)	24	10	34	46.6
3.0 (A, B)	14	6	20	27.4
Total	52	21	73	100
Percent	71.2	28.8	100	100

Chi-Square	Value	DF	Significance
Pearson	.07745	2	.96202
Likelihood ratio	.078291	2	.96161
Mantel-Haenszel test for linear assc.	.06264	1	.80236
Minimum expected frequency	5.466		
Number of missing observations	435		

Table 4
Chi-Square Test for English 1320 Grades

Grade	CB	NCB	Total	Percent
1.0 (D, F)	14	6	20	23.8
2.0 (C)	27	19	46	54.8
3.0 (A, B)	8	10	18	21.4
Total	49	35	84	100
Percent	58.3	41.7	100	100

Chi-Square	Value	DF	Significance
Pearson	2.55106	2	.27928
Likelihood ratio	2.56814	2	.27691
Mantel-Haenszel test for linear assc.	2.50235	1	.11368
Minimum expected frequency	7.500		
Number of missing observations	425		

Chi-square was used to examine grades received in writing intensive courses, History 1310, History 1320 and Philosophy 1305, after students had been remediated in course-based and non-course-based writing programs. As shown in Tables 5 and 6 (history only) no significant difference existed.

Table 5
Chi-Square Test for History 1310 Grades

Grade	CB	NCB	Total	Percent
1.0 (D, F)	20	9	29	39.2
2.0 (C)	19	15	34	45.9
3.0 (A, B)	6	5	11	14.9
Total	45	29	74	100
Percent	60.8	39.2	100	100

Chi-Square	Value	DF	Significance
Pearson	1.33695	2	.51249
Likelihood ratio	1.35449	2	.50801
Mantel-Haenszel test for linear assc.	1.08389	1	.29783
Minimum expected frequency	4.311		
Cells with expected frequency	<5 - 1 of 6 (16.7%)		
Number of missing observations	435		

Table 6
Chi-Square Test for History 1320 Grades

Grade	CB	NCB	Total	Percent
1.0 (D, F)	15	7	22	24.2
2.0 (C)	18	26	44	48.4
3.0 (A, B)	16	9	25	27.5
Total	49	42	91	100
Percent	53.8	46.2	100	100

Chi-Square	Value	DF	Significance
Pearson	5.81961	2	.05449
Likelihood ratio	5.88698	2	.05268
Mantel-Haenszel test for linear asac.	.03213	1	.85774
Minimum expected frequency:	10.154		
Number of missing observations:	418		

Credit Hours Earned

In comparing mean credit hours earned of the correlated groups, t-tests for independent samples of Groups 1 and 2 were run to verify the null hypothesis and related tests. The mean for Group 1 (course-based subjects) was 40.9322; standard deviation 34.183 and standard error 3.147. For Group 2 (non-course-based subjects) the mean was 47.1620; standard deviation 30.486 and standard error 2.558. Additionally, pooled variance estimates and separate variance estimates were run with no significant differences being detected . See Tables 7 and 8.

Table 7
Credit Hours Earned by Students Remediated in Course-Based and Non-Course-Based Writing (5 groups)

Group	Count	Mean
Course-based 1 semester	85	43
Course-based 2+ semesters	33	36
Non-course-based 1 semester	99	46
Non-course-based 2+ semesters	9	46
Course-based and Non-course-based 2+ semesters	34	52

Table 8
Credit Hours Earned by Students Remediated in Course-Based and Non-Course-Based Writing (2 groups)

Group	Count	Mean
Course-based 1+ semesters	118	41
Non-course-based 1+ semesters	142	47

GPAs of Students Remediated at SWT

As shown in Tables 9 and 10, significant differences were detected in students who were remediated in course-based and non-course-based writing programs at SWT.

Table 9
GPAs of Students Remediated in Course-Based and Non-Course-Based Writing (5 groups)

Group	Count	Mean
Course-based 1 semester	85	1.65
Course-based 2+ semesters	33	1.48
Non-course-based 1 semester	99	1.94
Non-course-based 2+ semesters	9	1.73
Course-based and Non-course-based 2+ semesters	34	1.90

Table 10
GPAs of Students Remediated in Course-Based and Non-Course-Based Writing (2 groups)

Group	Count	Mean
Course-based 1+ semesters	118	1.60
Non-course-based 1+ semesters	142	1.91

Since differences were detected in grade point averages of the five groups of students divided according to type and length of remediation received, t-tests were conducted with results for independent samples of Groups 1 and 2 and analysis of variance results as shown:

	Cases	Mean	SD	SE
Group 1	118	1.6024	.834	.077
Group 2	142	1.9146	.696	.058

Summary

Data were collected and analyzed in an attempt to determine whether differences could be detected between students remediated in course-based and non-course-based writing programs. Each of the variables measured, as well as the data itself, seems to suggest the research design is too broad-based. In other words, comparing course-based with non-course-based remediation using the same tests and measurements may not be feasible. It would be more feasible, and probably more accurate, to examine each of the types of remediation programs separately. Through this method, then, the instructional processes also could be addressed

Sources

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Kulik, C. C., Kulik, J., & Schwalb, B. (1983). College programs for high-risk and disadvantaged students: A meta-analysis of findings. *Review of Educational Research, 53*(3), 397-414.

Miles, C. (1984). Developmental education: Speculations on the future. *Journal of Developmental Education, 8*(1), 6-9, 2.

For a more detailed report of the study results, methodologies, or implications for future research, contact me at:

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The Effectiveness of Course-Based and Non-Course-Based Writing Remediation

(Data Collection Model)

2nd National Conference on
Research in Developmental Education
(October 23 - 26, 1996)

Bonnie K. Sonnek

University of Texas at Austin
Southwest Texas State University

DATA COLLECTION

Effectiveness of Writing Remediation

Directions:

Using the model on the attached pages, collect the data for a course you teach or a lab you supervise. You may collect data on as few as five students or on as many as you wish. Often, instructors are able to submit students' social security numbers to the institution's research division, and the data can be collected electronically. If you cannot do this, you can manually fill in each of the blanks (or whatever portion you wish to complete).

You may follow a student through one semester or choose to follow the student for several years. This is a pilot project being used to test the effectiveness of different types of writing remediation. If you are interested, review the model and feel free to contact me if you have questions or concerns.

Please maintain the confidentiality of your students by assigning numbers/letters and by receiving the necessary release for student records/information required by your institution.

Contact: **Bonnie K. Sonnek**
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P.O. Box 7636
Austin, TX 78713-7636

Phone: Wk (512) 471-8277
Hm (512) 243-3464
Fax: (512) 471-6506
e-mail: bks@mail.utexas.edu

KEY WORDS/PHRASES/ABBREVIATIONS

Semester:	1295	Fall Semester 1995
	0596	Spring Semester 1996
	0796	Summer Session I 1996
	0896	Summer Session II 1996
Remediation:	NCB	Non-course-based remediation
	CB	Course-based remediation
Grade:	P/F	Pass/Fail
	S/U	Satisfactory/Unsatisfactory
	A,B,C,D	Credit
	F/NC	Fail or No credit
	W	Withdrawal (no credit)
Retention:	One year	Student was enrolled in institution one year later
	Two years	Student was enrolled at institution two years later
Current GPA:	GPA at retention date listed or most recent GPA available	

COURSE-BASED AND NON-COURSE-BASED WRITING REMEDIATION
Data Collection Model

A Assigned number	B Remed. sem./ year	C Total hrs.	D Remed. sem./ year	E Total hrs.	F Fail TASP score	G Test date	H Fail TASP score	I Test date
EX. 101	1295	29	0596	15	180	9/95	200	11/95
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

COURSE-BASED AND NON-COURSE-BASED WRITING REMEDIATION

(Data Collection continued)

J English grade/sem.	K History grade/sem.	L Retention/ 1 year Y or N	M Retention/ 2 years Y or N	N Current GPA	O Comments
EX. C/0596	B/1295	Y	N	2.3	Transferred
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

DATA SHEET

Institution: _____

Instructor: _____

Address: _____

_____

Phone: _____

Fax: _____

e-mail: _____

INSTRUCTIONAL INFORMATION

1. Type of remediation: (CB or NCB) _____

2. Instructional type: (peer, prof., TA, etc.) _____

3. Teaching approach(es) _____ ____%

_____ ____%

_____ ____%

4. Other conditions you think may have affected student outcomes:

5. Please explain the level of involvement you would like to have in the presentation/compilation of this data. This is a pilot study, but I would like to be able to present results at a future conference (and would welcome any help!).

6. Comments and/or concerns:

Please send your data and comments to:

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